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09/741,680	12/15/2000	Vipin Samar	OR00-14001	6541
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PARK, VAUGHAN & FLEMING LLP 508 SECOND STREET SUITE 201 DAVIS, CA 95616			NGUYEN, CAM LINH T	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 5, 7 – 13, 15 – 21, 23 – 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over O’Flaherty et al (U.S. 6,275,824) in view of Teijido et al (U.S. 2002/0053202).

♦ As per claim 1, 9, 17, 25, 30, 33, 38, 41, 46,

O’Flaherty discloses a system for control access data in a database comprising:

- “Receiving a command to perform an administrator function involving an object defined within the database system” (See Fig. 2A). The command can be made by type of users in the privileged classes (A, B, and C) (See col. 8, lines 46 – col. 9, lines 35). “An object defined within the database system” corresponds to a table or a portion of the table in the database system.
- “Determining if the object is a sensitive object that is associated with security functions”. O’Flaherty teaches that in order to access to the object, it must determine the sensitivity level of the information (Col. 7, lines 10 - 15), and the sensitivity level of a resource is simply a value. (See also fig. 4A- 4B, Teijido).

- “The sensitive object” corresponds to “a sensitive information portion 208” (col. 7, lines 15 in Fig. 2A,) where the “sensitive information portion 208” can include “a sensitive row contains sensitive data” see Fig. 2A.
- “The sensitive object and only the sensitive object is encrypted in the database system” See col. 10, lines 49 – 57.
- “If the object is a sensitive object, and if the command is received from a normal system administrator, disallowing the administrative function” See col. 8, lines 46 – 61. The class A applications permits administrator performs administration functions in the data, therefore, it must check for user privileged for accessing these data (col. 8, lines 39 – 42). (See also fig. 4A- 4B, Teijido).
- “If the object is not a sensitive object, and if the command is received from an administrator who is not a security officer; allowing the administrative function to proceed” See col. 8, lines 62 – col. 9, lines 35). (See also fig. 4A- 4B, Teijido).

O’Flaherty teaches a plurality of view of different users, including the administrator view.

O’Flaherty does not clearly teach that the database system has a plurality of administrators, and at least one of the plurality of administrators is a security officer who can perform administrative functions on sensitive objects.

However, Teijido, on the other hand, discloses a security system that comprises:

- “Plurality of administrators” page 5, paragraph 0065.
- “The sensitive object” See page 3, paragraph 0036, 0107.

- “Wherein at least one of the plurality of administrators is a security officer who can perform administrative functions on sensitive objects” See page 4, paragraph 0048 - 0049, page 5, paragraph 0065.
- “Wherein an administrator in the plurality of administrators who is not a security officer cannot become a sensitive user and thereby obtain access to sensitive objects indirectly” See page 4, paragraph 0048 – 0049, 0065 – 0067. Wherein, “an administrator in the plurality of administrators who is not a security officer” can be a library administrator, who is responsible for the configuration and management only. This type of administrators are not allowed to access to the security administrator level.
- “If the object is not a sensitive object, and if the command is received from an administrator who is not a security officer; allowing the administrative function to proceed” See fig. 4A – B.
- “If the object is a sensitive object, and if the command is received from an administrator who is not a security officer, disallowing the administrative function” See Fig. 4A, element 66.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to create different levels of administrators using the teaching of Teijido into the system of O’Flaherty rather than because the teaching of Teijido provides secure electronic access to the system using a Public Key Infrastructure/PKI (paragraph 0007, Teijido); the combination would protect the database more secure by using different administrator levels (paragraph 0048, Teijido).

◆ As per claim 2, 10, 18, 26, 34, 42, O’Flaherty discloses:

- "A request to perform an operation" corresponds to "a command to perform an administrative function" See col. 8, lines 39 – 61. (See also fig. 4A- 4B, Teijido).
- ◆ As per claim 3 - 5, 11 – 13, 19 – 21, 27 – 29, 35 – 37, 43 – 45, O'Flaherty discloses:

O'Flaherty teaches that the data in a given row is encrypted with an encryption code, or by providing each data field with a unique encryption number. Clearly, the administrator must decrypt the data in order to access it.
- ◆ As per claim 7, 15, 23, 31, 39, 47, O'Flaherty discloses:
 - "Allowing the security officer to perform the administrative function". See col. 8, lines 39 – 61. (See also fig. 4A- 4B, Teijido).
- ◆ As per claim 8, 16, 24, 32, 40, 48, O'Flaherty discloses:
 - O'Flaherty teaches about how to protect a sensitive data stored in the database. Therefore, the database must include a number of sensitive data items, and only specific sensitive users are allowed to access a given data item as shown in Fig. 2A, col. 8, lines 39 – 61.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - Scott Shurts (U.S. 5,572,673) discloses a secure multi-level system for executing stored procedures.
 - Fritch et al (U.S. 6,105,132) discloses a computer network graded authentication system and method.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CamLinh Nguyen whose telephone number is 305-1951. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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LN


WAYNE AMSBURY
PRIMARY PATENT EXAMINER